of Humboldt and Bonpland is meant) *Fraxinus heterophylla*, a European tree! The *Vanilla*, *Cacao* and *Quinoa* cultivated in the desert west of the Colorado! *Zinnia elegans*, *Georgina coccinea*, *Ipomea purga* are all placed too far northward. *Robinia viscosa* and *hispida* between the upper Missouri and Rocky Mountains, with *Gleditschia monosperma* and *G. triacanthos* in Northern Wisconsin; *Rosa suavis* and *Americana*, quite unknown species; *Pinus palustris* on McKenzie River!! *Pinus occidentalis* from West Indies, transplanted to the North American continent; *Juglans olivæformis*, our *Pecan* and *Castanea pumila* in the Rocky Mountains, and *Kalmia cuneata* on the Red River; *Aristolochia officinalis* (probably *Serpentaria*), *Bignonia capreolata* in Michigan; *Diospyros Lotus* an European tree; almonds and figs cultivated near Lake Ontario! And so on! Should all these errors be reproduced in the second edition, the introduction of the work into our schools will be a great nuisance. — F. BRENDEL.

NATURAL HISTORY MISCELLANY.

BOTANY.

DIALYSIS WITH STAMINODY IN KALMIA LATIFOLIA. — These two technical words we take from Dr. Masters' interesting volume published last year by the Ray Society, entitled "Vegetable Teratology," which last word denotes the science of monstrosities. *Dialysis* is the term applied to the separation of parts which are normally united; *staminody* is the conversion of other organs into stamens.

We have before us a novel and specially interesting monstrosity which is described by these terms. It was discovered by Miss Bryant, at South Deerfield in this state, and we are indebted to her, through a common friend, for the specimens before us. Among the shrubs of *Kalmia latifolia* which abound in a swamp belonging to Col. Bryant, a few have been noticed as producing, year after year, blossoms in singular contrast to the ordinary ones of this most ornamental shrub, and which, indeed, are more curious than beautiful. The corolla, instead of the saucer-shaped and barely 5-lobed cup, is divided completely into five narrowly linear or even thread-shaped petals. These are flat at the base, and scarcely if at all broader than the lobes of the calyx with which they alternate, but above by the revolution of the margins they become almost thread-shaped, and so resemble filaments. This resemblance to stamens goes further; for most of them are actually tipped with an imperfect anther; that is, the corolla is separated into its five component petals, and these transformed into stamens. Altered as they are in shape, yet a trace of the pouch is often discernible, in the form of a little boss on the outer or lower side, and a slight corresponding depression on the upper. The anther is ex-

trorse and adnate, usually subapical rather than strictly terminal, and its two cells incline to open lengthwise. The ten proper stamens are just as in the normal flower, except that they are erect or at length recurved, and the anthers wholly free, there being no pouches to receive them. The pistil is wholly normal, and there is nothing apparent to prevent the ovules from being fertilized and maturing seed. — A. GRAY.

OCCURRENCE OF RARE PLANTS IN ILLINOIS. — There are in "Gray's Manual" some species noted as rare which grow in the vicinity of Peoria: *Silene nivea* DC., *Napœa dioica* L., *Polygala incarnata* L., *Cacalia suaveolens* L., *Asclepias Meadii* A. Gr., *Pogonia pendula* Ldl., *Liparis Lœselii* Rich., *Aplectrum hyemale* Nutt., *Panicum autumnale* Bosc., *Zannichellia palustris* L., in great abundance; and in St. Clair county, *Eleocharis quadrangulata* R. Br.

There are a number of species which could, from the habitats given in "Gray's Manual," be taken as not growing in Illinois, though they do; they are *Arenaria lateriflora* L., *Flœrkea proserpinacoides* Willd., *Agrimonia parviflora* Ait., *Archangelica atropurpurea* Hoffm., *Lonicera flava* Sims, *Aster œstivus* Ait., *Solidago neglecta* T. Gr., *Gnaphalium purpureum* L. (only one found), *Troximon cuspidatum* Ph. (noted as reaching to North Illinois), *Arctostaphylos uva-ursi* Spr., *Lysimachia thyrsiflora* L., *Utricularia intermedia* Hayne, *Phlox reptans* Michx.(?), *Fraxinus sambucifolia* Lam., *Aristolochia serpentaria* L., *Dirca palustris* L., *Carya tomentosa* Nutt., *Salix myrtilloides* L., *Orchis spectabilis* L., *Trillium nivale* Ridd., *Triglochin maritimum* L., *Potamogeton pectinatum* L., *Allium tricoccum* Ait., *Carex arida* Schw. Torr, *C. filiformis* L., *C. lanuginosa* Michx., *C. longirostris* Torr., *Equisetum variegatum* Schleich., *Asplenium angustifolium* Michx., occur around Peoria.

I have seen *Arabis lyrata* L., on the limestone rocks near Galena, and *Collinsia verna* Nutt., in Fulton county. In Southern Illinois I have collected *Vitis indivisa* Willd., *V. bipinnata* T. Gr., *Heuchera villosa* Michx., *Fedia radiata* Michx., *Celtis Mississippiensis* (near Cairo) *Quercus phellos* L., *Cyperus virens* Michx., *Paspalum Walterianum* Schult., *P. lœve* Michx., *Camptosorus rhizophyllus* Link (at Falling Spring, opposite St. Louis). — F. BRENDEL.

ZOOLOGY.

EARLY ARRIVAL OF GEESE. — A flock of forty geese (*Anser Canadensis*) were observed passing over Glace Bay, Cape Breton, steering north on the 23d of February. This is at least a fortnight earlier than I have ever known them to appear in Nova Scotia. — J. MATTHEW JONES, *Halifax, N. S.*

HYBRID FOWLS. — In answer to a query in the NATURALIST for March, as to the hybridation of Pintados, I might state that an instance of the kind alluded to came under my notice in the year 1845, where the cross was the more singular one of a male turkey and a female Guinea hen.